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## INSURANCE ON SUB-STANDARD LIVES

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Certain types of persons who apply to insurance companies are known as sub-standard, under-average, impaired, or invalid lives. These lives do not come up to the standard which is required by the companies to entitle the applicants to policies at the usual rate of premium under their regular forms of insurance. It would be impossible to lay down an exact definition of a sub-standard risk, because one company with liberal methods of selection might accept an applicant as a standard life while another company with a stringent selection might treat him as a sub-standard risk, or decline to issue a policy. So far as each individual company is concerned, however, it may be said that a sub-standard risk is one on which a company has refused to grant a policy on any terms, has charged an extra premium, has advanced the age, has imposed a lien, or has otherwise adversely modified the usual terms of the contract. The great majority of companies either accept or decline an applicant for insurance, while a few insure a goodly proportion of the sub-standard lives under plans which suit the conditions and conform to the valuation placed on the risk by the medical department.

### TYPES OF SUB-STANDARD LIVES

Sub-standard lives consist generally of the following:—

1. Persons who are suffering from a serious disease.
2. Persons who have had a history of a serious disease, or have had certain major operations.
3. Persons with an unfavorable physical condition, including those whose blood pressure or urine is abnormal.
4. Persons who in the past have had attacks of ailments not usually considered serious.
5. Persons who have had an unfavorable personal history of ailments not of major importance which may be liable to recur.
6. Persons whose habits as to alcohol have been bad in the past, who occasionally drink to excess, who have taken a cure for alcoholism, or who drink freely but not to the point of intoxication at the present time.

7. Persons with a short-lived family history, with a family history of some hereditary disease, or with a hereditary predisposition to a serious disease.
8. Persons whose build differs so much from the average that past experience warrants the expecting of a higher mortality among them. This covers persons who are overweight and those who are underweight.
9. Persons in hazardous or semi-hazardous occupations.
10. Persons living in unhealthy localities.

In the foregoing list would appear persons with such serious impairments that they would not be accepted by insurance companies on any terms. These generally consist of persons actively diseased, such as those now suffering with tuberculosis, cancer, or diabetes; also persons with serious forms of heart trouble.

The necessity for plans to meet the needs of sub-standard risks can be realized from the fact that 10 per cent of the applicants for insurance are not considered by the companies as standard lives.

#### HISTORY OF SUB-STANDARD INSURANCE

The necessity of providing insurance for sub-standard lives was early recognized, but it is only within very recent years that the necessary plans have been put into effect by strong companies in the United States to meet the needs of such risks. In 1865 the Universal Insurance Company, a New York corporation, was stated by Elizur Wright, the Insurance Commissioner of Massachusetts, to have plans for insuring at advanced rates the lives rejected by other offices. About the same time other companies made the same announcement, but neither they nor the Universal succeeded in making a success of that business; in fact, every company failed which engaged in the insuring of under-average lives in these early days of life insurance. In 1892 the Life Insurance Clearing Company of St. Paul was organized for the insurance of sub-standard lives exclusively, but after a brief existence it was reinsured. Its plans were not attractive. Another company, the Security Trust Company, was organized in Philadelphia in 1896, and obtained considerable "rejected" business from the agents of other companies. It is needless to take up the reasons for its lack of financial success; suffice to say that it also had to be reinsured.

The first successful attempt in this country to do under-average business was made by the New York Life Insurance Company in 1896. At the end of twenty years it has over \$300,000,000 of such

business on its books, and has paid over \$40,000,000 in death losses. The Equitable Life Assurance Society also undertakes this form of insurance, and has over seventy millions of this business in force. Another company which does both industrial and ordinary business had about forty millions of insurance in force in its under-average class, in addition to a considerable amount of business on lives in semi-hazardous occupations which were placed in the intermediate class. Other companies, not so large as these three, have also plans for granting insurance to sub-standard lives. In Great Britain several of the early endeavors to treat impaired lives equitably met with success, so that there are a number of companies which have carried on that business many years, one company for more than ninety years.

#### THE NEED FOR EQUITABLE PLANS

The foregoing figures indicate that the need for this kind of insurance is very great. A conservative measure may be obtained by assuming that 5 per cent of all the applications for insurance are declined by companies, and could safely be covered under sub-standard policies. This would mean that during the year 1916 applications for about \$115,000,000 of insurance had been refused protection during that year.

An idea may be obtained of the types of risks which are received by a company transacting sub-standard business from the following table, in which the cases appear according to their importance:

- Overweight
- Tuberculosis in family history
- Albumin, intermittent or constant
- Heart murmur
- Underweight at young ages
- Occasional alcoholic excesses
- History of cured tuberculosis, blood spitting, consolidation of lungs, etc.
- History of inflammatory rheumatism
- History of renal colic, gravel, hepatic colic, gall stones, etc.
- Fragile, not robust, anaemic
- History of malarial fever, or chills and fever
- History of gastritis, or catarrh of stomach
- Irregular pulse
- Sugar, intermittent or constant
- Goitre
- Rapid pulse
- History of syphilis

In addition to the foregoing, and more numerous than any of these types, are occupations involving hazard, such as electricians handling live wires, saloon keepers, firemen in city departments, locomotive engineers on railroads, employes in gunpowder plants, grinders of glass, underground coal miners, stone cutters, and workers in compressed air.

While it is evident that persons coming within the foregoing classes are fully as much in need of insurance as standard lives, plans which would be fair to the policyholders and to the company were developed very slowly. As already pointed out, it was thirty years after the first unsuccessful attempt to insure under-average lives before a large company undertook such business. This was not due to any lack of enterprise on the part of American insurance men, but to the great difficulties in the way, and to the apprehension of failure based upon the history of other companies. The main difficulty was to find reliable mortality bases, which entailed a knowledge of the mortality under the numerous types of under-average lives. If the companies had been confronted with a few main types, without any complications, such as persons with albuminuria, mitral regurgitant heart murmur, or glycosuria, the difficulties would have been much more readily solved. Frequently, however, there were other defects in addition to the principal impairment. So far as preparing the actuarial plans for meeting the extra hazard, there has been sufficient knowledge on this point for the last forty years, but there has been very little available material until recent years with regard to the relative mortality among the various groups of impaired lives. Most of the available material until a few years ago was based on English statistics, and these were scanty in volume.

#### BASES OF STATISTICS

The first successful attempt in this country to obtain satisfactory statistics was made by Dr. Oscar H. Rogers, who investigated the mortality among the declined cases of the New York Life Insurance Company. These investigations were commenced in 1893, the records of the declined cases for the preceding twenty years being completed by means of correspondence with agents, with friends, and with salaried employes of the company. The date of death was obtained and also a record of the last date on

which the applicant was known to be living. With regard to the cases which could not be traced, it was assumed that there would be a death rate among them three times as great as among the cases whose records had been obtained. It was recognized, however, that because of the different conditions, there might be a different incidence in mortality among the policyholders to whom sub-standard contracts are issued than among the declined cases. For example, among the declined applicants all those who were refused insurance because of drinking occasionally to excess would be under observation, except those who had moved to an unknown address. On the other hand, the persons to whom sub-standard policies were offered had the right either to accept or to refuse to take them. If the applicant thought the company was too severe with him he would be inclined to refuse, while if he felt that he was obtaining a liberal policy from the company he would surely accept. As a result, there would be a selection against the company by reason of the poorer grade of risks taking the offers of the insurance company. A similar condition may be noted in the case of companies which accepted certain "border-line" risks on their regular plans and found by experience that these risks should have been granted sub-standard policies. Most of these types were considered doubtful by the companies, and, accordingly, a very strict selection was maintained when they were accepted as standard lives; that is to say, only one out of every five might have been granted a policy, and therefore only the best of each type was accepted. When suitable provisions are made for meeting the extra mortality there need not be so strict a selection, and in that event the group of sub-standard lives would not prove to be so high grade outside of the impairment in question as those accepted as standard risks.

The statistics giving the relative mortality among the various types of under-average risks are generally taken from the following sources:

- (a) The unpublished experience of individual companies;
- (b) The Specialized Mortality Investigation;
- (c) The Medico-Actuarial Mortality Investigation;
- (d) The papers appearing in (1) the *Transactions of the Actuarial Society of America*; (2) the *Proceedings of the Association of Life Insurance Medical Directors*; (3) the *Journal of the Institute of Actuaries*; (4) the *Transactions of the Faculty of Actuaries*, and the published accounts of other scientific bodies.

At this point a word should be said with regard to the Medico-Actuarial Mortality Investigation. That investigation was conducted by a committee composed of members of the Actuarial Society of America and the Association of Life Insurance Medical Directors. The data were contributed by forty-three American and Canadian life insurance companies, and covered a period of about twenty-four years (1885 to 1909) on about two million lives. The report of the committee appears in five volumes, and covers the relative mortality in ninety-seven classes of occupation and forty-eight types of medical impairment. It also contains data relating to the influence of build on mortality, new tables of height and weight, standard tables of cause of death, relative mortality in the southern states, an extensive study of the effect of alcohol on longevity, the influence of a family history of tuberculosis, and the experience of the companies in four groups of women. These reports are invaluable in assisting the companies to determine whether a risk is standard or sub-standard. They also enable experts to determine approximately the extra mortality which should be anticipated on many types of under-average lives.

#### METHOD OF EXPRESSING THE RELATIVE MORTALITY

In expressing the relative mortality the general practice is to use the proportion which the mortality in the class or group bears to the mortality among a corresponding group of standard lives. In the Medico-Actuarial Mortality Investigation, for example, the mortality experienced by the companies among *standard* lives was obtained for the various policy years under groups of ages at entry. The "expected" deaths in the various classes or groups were then calculated by multiplying the "exposed to risk of death" by these sets of mortality ratios. These "expected" deaths represent the approximate number which would have died if all the lives had been standard. The number of "actual" deaths occurring in the sub-standard class under investigation is then ascertained, and the proportion which they bear to the number of deaths by the standard table is the measure of the relative mortality. For example, if there were 300 "actual" deaths among a class of persons who had a mild type of heart murmur, and if the "expected" deaths according to the experience on a corresponding body of standard lives would have been 200, then the ratio of actual to expected deaths, or the

relative mortality, would be 150 per cent,—*i.e.*, 50 per cent in excess of the standard or of the normal.

### PLANS FOR INSURANCE OF SUB-STANDARD LIVES

There are three requisites for a satisfactory plan of meeting the extra mortality on sub-standard risks:

1. It must be equitable to the sub-standard policyholders, and not a burden on the standard policyholders, or on the company as a whole.
2. It must be attractive to the applicants,—that is, the policies must be saleable.
3. It should be equitable as between the different types of sub-standard lives.

The principal plans on which sub-standard risks are accepted are:

1. A lien is imposed on the policy, thereby reducing the face of the policy at death, and such lien is generally reducible by the premiums paid from year to year.
2. An extra premium is charged.
3. The premium is charged at an advanced age instead of at the true age.
4. The policy is placed in a special class as to surplus or dividend.

In addition to the foregoing, policies have been issued on the double endowment plan or on modifications of it. Under double endowment policies a short period of years is selected, usually twenty years, during which if the insured dies his heirs receive one-half of the amount payable at the end of the twenty years. It is equivalent to an insured buying a pure endowment policy of \$2,000 payable twenty years hence if he should live, with a term insurance policy of \$1,000 payable if he should die during the twenty years. The premium varies very little by age, so that whether an applicant is aged fifteen or fifty-five at entry, the rates are nearly the same. This is accordingly equivalent to assuming that a mortality similar to that experienced at age fifty-five at entry may be borne on a young man of say fifteen. The principal disadvantage of this form is that the premiums paid considerably exceed the amount payable in event of death during the later policy years.

A few companies in Great Britain issue policies without medical examination, but a reduced amount of insurance is paid in the early policy years. This is a modification of the lien system.



## LIEN SYSTEM

Under the lien plan the amount of insurance payable at death generally increases with the age of the policy until it equals the face thereof. A notable exception to this rule was made in the case of the Life Insurance Clearing Company of St. Paul, which had a lien increasing with the advancing age of the insured. It was assumed that the dividends would be so large that they would not only offset the increase in lien, but rapidly result in its elimination. The expectation of the founders of the company was not realized. A plan which depends so largely on the dividends of the future does not deserve to be popular.

There are many different kinds of liens. One company, for example, had liens from \$200 to \$900 per thousand, reducible by the premiums paid, the amount of the lien depending upon the degree of impairment. Another company imposed liens the initial amount of which represented its published single premiums for the whole of life and for ten, fifteen and twenty year endowment insurance. To make this lien method clear an example may be given. If the lien were \$500 per thousand and the annual premium \$30 per thousand, the insurance payable in the event of death in the first year would be \$530, in the second year \$560, in the third year \$590, etc., until in the seventeenth year and thereafter \$1,000 would be due at death. Such a form of policy appeals to many applicants, because if they prove to be poor risks and die in the early policy years, their beneficiaries will receive a good return for the premium paid, notwithstanding the lien; whereas, if the insured outlives the period in which the lien is charged, they are not adversely affected by it.

The lien may be reduced by any other sum than the amount of the annual premium, but the annual premium has generally been used in the United States and Canada on the ground of simplicity. In Great Britain it is a common practice to impose a lien for a period equal to the expectation of life, reducing it by equal annual payments during that period.

The premium charged for a lien policy is the same as that for a standard policy, it being considered that the extra mortality will be met by the lien.

When it is expected that the relative mortality in any group will be heaviest in the early years following issue, and that it will

thereafter become normal, the lien system is very satisfactory from the standpoint of the company. Where, however, the *extra* mortality is constant or where it tends to increase with advancing age, the company is not so well protected. The extra mortality covered by means of liens is not so large as is popularly supposed. This is apparent when it is realized that the value of the lien is equivalent to the value of temporary insurance for the difference between the face amount and the sum payable at death.

When there is a variety of liens at each age, the question of reserves and of surrender values is a complicated one, because the reserve varies with each form of lien and with the mortality table corresponding to the anticipated mortality in the group. For example, if a \$500 lien per thousand is imposed upon applicants who are expected to have a mortality of 150 per cent (50 per cent in excess of the normal), the reserve on an ordinary life plan would be different to those under policies where the liens were \$700 per thousand and a mortality of 175 per cent was expected. As, however, the various states allow a deduction from the reserve in determining the surrender value, it is not necessary to calculate a different set of such values for the various liens, because the difference may be absorbed in the surrender charge,—*i.e.*, under one lien the surrender charge might be \$10, and in another \$12, due to the difference in the reserves under the policies. The term extension feature is generally omitted from policies on highly impaired risks.

#### POLICIES WITH EXTRA PREMIUMS

An extra premium may be charged throughout the life of the policy or for a few years only. It is customary to charge these extra premiums for hazardous occupations in which the additional mortality is due to accident. For example, underground miners may be charged an extra of \$5 per thousand irrespective of their age, on the assumption that the hazard of occupation is approximately constant with age.

The extra premium may be calculated so as to cover the anticipated extra mortality only, or it may provide for commissions and for dividends. In cases of change of occupation the extra premium is usually removed after a probationary period on satisfactory evidence of insurability. It is not customary to increase the surrender values on account of the extra premiums. The reserve

carried by the company at the end of the calendar year (middle of the policy year on the average) is usually one-half the extra premium for the current year in addition to the regular reserve.

Where the extra hazard is temporary, such as in the case of a history of appendicitis or of certain forms of ulcer without operation, the extra premium is charged during the years in which the disease is likely to recur.

#### ADVANCE IN AGE

Under the plan of advancing the age the policyholder is usually treated in all respects as of the advanced age. If, for example, he were thirty-five years of age and by reason of impairment was considered as ten years older, then he would receive a policy with premium, surrender values, non-forfeiture features and dividends as of age forty-five. For reserve purposes the policy would be carried on the books of the company as though the true age were forty-five.

In determining the advance in age to meet the extra risk on a sub-standard life one must first know what extra mortality is to be provided for. If for example, a person age thirty applies for an ordinary life policy and it is expected that the mortality to be met on a group of similar lives will be 200 per cent of the normal, it is assumed that the probability of dying in any year is twice the normal or standard. We first calculate the premium at age thirty for an ordinary life policy on a mortality table with double mortality rates. It is then compared with the premiums for ordinary life policies at normal mortality rates, and the premium which most nearly approximates to the premium at age thirty on the double mortality table is recorded; the difference between age thirty and the age to which this premium applies gives the advance in age. These calculations are based on net premiums as distinguished from gross premiums. This advance in age is then charged on gross premiums thus providing for increased dividends and surrender values over the normal age. Should it be desired to charge extra premiums instead of an advance in age the practice is generally to take a percentage of the extra charge determined by the advance in age method.

The above method is adopted in one large company, but there are other plans for calculating extra premiums and advances in age.

## SPECIAL CLASSES FOR SUB-STANDARD RISKS

Prior to 1907 several companies had special classes in which the dividends were deferred for periods of fifteen or twenty years. At the end of that time the mortality experienced in the class for under-average lives was taken into account in determining the accumulated dividends then payable. In one large company there were two classes for sub-standard lives,—one for those slightly under average, and the other for those more seriously impaired. In the latter class liens were also imposed to provide for the highly impaired risks. In another company special dividend classes were made for those in hazardous occupations, such as liquor dealers and railroad men. So far as can be ascertained, the dividends in these special classes range from 50 per cent to 90 per cent of the dividends under corresponding policies in the regular class. If the lives are reasonably homogeneous, this is an equitable practice, but it can no longer be employed to advantage by companies operating in New York State. While it is theoretically possible to have a special class in connection with annual dividends, no company of prominence has attempted to create it, on account of the practical difficulties. It can easily be seen that the annual dividends might be subject to violent fluctuations, and that the company would be open to misunderstanding by a comparison of the dividends in its sub-standard class with dividends in another company in its standard or regular class.

## NUMERICAL RATING OF RISKS

One of the requisites to successfully conducting an under-average business is a means of expressing the relative mortality. The medical director, the actuary and other officers of the company must be able to speak a common language in this matter. As already pointed out, the practice has arisen within recent years of showing the relative mortality to a standard which is assumed to be 100 per cent, so that 200 per cent means double the normal mortality of the company, or 100 per cent additional mortality. One of the larger insurance companies, in order to facilitate the handling of its under-average business, has developed a system of numerical values for the various factors entering into the composition of a risk. The applicant is given credits or debits, depending upon

favorable or unfavorable features. Take, for example, a farmer who is slightly over the average weight, and has a good family history, but albumin has been found on examination. Basing the credits and debits on the company's own mortality experience, or on the results of published mortality investigations, the company might add ten points for overweight and fifty points for albuminuria, subtract fifteen points for favorable occupation and ten points for a good family history. This would be a net addition of thirty-five points to the basic rating of one hundred, so that he would then be considered as belonging to a group of persons having 135 per cent mortality,—or 35 per cent in excess of the normal.

The foregoing system has its limitations and must be applied with good judgment. It does away with personal bias on the part of the official who passes on the risks, and is an excellent guide for him in determining how each case should be treated.

#### BORDER-LINE RISKS

Applicants for life insurance may be divided into three groups: (a) those who are surely standard risks; (b) those who are surely sub-standard risks, and should either be declined or charged an extra premium, or have the policy modified in some way; and (c) border-line risks. If a committee of medical directors were appointed to pass on one thousand cases, it is probable that they would agree on 90 per cent being placed in either group (a) or group (b); while if the medical directors of one company passed on these risks, there probably would not be a difference of opinion with regard to these groups in more than 2 per cent of the cases. It naturally follows that among the 10 per cent upon which the medical directors of the various companies would differ there would be a proportion of these border-line cases which would be treated as standard by some companies, and a percentage which would be considered as sub-standard. The difference in opinion among the medical directors is partly due to their interpretation of the existing statistics, partly to the experience of their own company which may have differed from the results of the Medico-Actuarial Mortality Investigation, and partly to their individual experience. It is well known, for example, that some companies have had either a better or a worse experience than that shown in certain classes of the Medico-Actuarial Investigation because their selection was

more or less severe than that practiced by the average company. An endeavor is being made by the Actuarial Society of America and by the Association of Life Insurance Medical Directors to lessen the percentage of cases on which the companies differ in their treatment. The combined wisdom and knowledge of a group of actuaries and medical directors would be better than the opinion of a single man in either of these professions, however able he may be, and it is hoped to give to all companies the benefit of the opinions of these men. A committee of the two societies is studying all the available statistics, and is having put at its disposal the unpublished experience of many of the largest companies in the country. With this knowledge, much of which has hitherto not been available to the insurance profession, the joint committee may be in a position to publish information which will result in fewer differences of opinion on border-line risks. The sole function of the committee is to obtain information which would be of assistance to the companies, and there is no intention, by moral suasion or otherwise, to induce the companies to change their practice. Experience has shown that if new light is supplied to the companies they are glad to make intelligent use of it.

#### SELECTION OF RISKS

In selecting risks, other knowledge is necessary than that of medicine. In nearly all companies there is a committee of review which assists the medical department in determining the insurability of certain types of risks. On the committee there is usually a medical director, an actuary, a secretary or other executive officer, and a member of the agency department. That committee considers such questions as (1) the amount which should be taken on a risk; (2) the moral hazard, including the finances of the applicant; and (3) the probable selection against the company. In order to do its work properly, the members of the committee must have a knowledge of the experience of the company with regard to its mortality on policies for large amounts, on women, on persons in hazardous occupations, on border-line risks, and, in fact, on all matters which are not purely medical. The phrase "moral hazard" is used in a special sense in insurance companies; for example, it would be considered a moral hazard if insurance were applied for on an elderly woman without dependents, the sons being the payers of

the premium and the beneficiaries under the policy. Such cases may be declined, or accepted for a small amount of insurance under a sub-standard plan, as a group of such cases would undoubtedly show a higher mortality than the normal, a certain proportion being of a speculative nature on risks below the average for reasons which were not apparent to the medical examiner.

#### SELECTION AGAINST THE COMPANY BY SUB-STANDARD LIVES

In preparing plans for sub-standard lives the psychology of applicants should be considered carefully. There is known to be selection either in favor of, or against the company which has a material effect on the mortality. It has been proved, for example, that the applicants who apply for endowment policies, and are found to be standard risks, are much better risks than those who take ordinary life policies. This is undoubtedly due to the fact that those who apply for endowment insurance expect to live until the end of the period, usually twenty years, to receive the endowment, —otherwise they would ask for cheaper forms of policy. The companies, therefore, get the benefit of the opinion of the insured with regard to his longevity, in addition to the expert judgment of the medical examiner.

The effect of selection has also been noted in the under-average field. A group of applicants who have liens placed against them would be partly influenced in taking their policies, by their own opinion regarding their prospects of longevity. If they expected to outlive the lien they would be inclined to accept the policy offered by the company; while a goodly proportion of those who did not expect to live a long life would refuse to accept such policies and would prefer to go to other companies which charged an extra premium. When a heavy extra premium is charged, the tendency is for the better grade of risks to decline to take the insurance, while the poorer grade of the same type accept. This was shown in the experience of a large company, which found a mortality lower than expected among highly impaired risks under policies with a heavy lien, and a higher mortality than expected among a similar group issued in later years when the company charged an extra premium because the lien system could no longer be applied.

Another type of selection which may be noted is that of an applicant who has been declined by a company and who applies to

another company which grants sub-standard insurance. If he feels that he is not in good condition he will naturally try to get as much insurance as he can carry, with the expectation of cancelling part of it at a later date. A company, therefore, must be on its guard against anti-selection of this nature.

#### TREATMENT OF SUB-STANDARD LIVES WHICH IMPROVE IN HEALTH

One of the difficult questions to solve is what should be the treatment of under-average lives which improve in health. It should be remembered that if a mortality of say 200 per cent is assumed for any group and if the best risks are gradually taken out, leaving those who have not improved or who have actually deteriorated, the mortality is likely to be higher than 200 per cent. Either of two methods of meeting the problem may be adopted. First, in determining the expected mortality an addition may be made to cover granting better policies to all the risks which improve. Second, in providing for the expected mortality a slight provision only is made so as to give the privilege of a better form of policy during a short period, not exceeding say three years. The difficulty under the first method is that the class would likely deteriorate rapidly if the agents made a practice of canvassing the policyholders periodically to find out whether they had improved or not. In some cases this improvement might only be temporary, but the company would not have the privilege of again treating them as sub-standard. While it is technically correct to treat sub-standard risks in this manner, I do not know of any company which pursues this course because of the practical difficulties. With regard to the second method, it is quite common to allow a change to be made during the first two or three years, no change to be made thereafter. The disadvantages of refusing to grant standard forms of policy after a reasonable period is that agents induce a number of the best lives to surrender their contracts.

#### ADVANTAGES TO AGENTS OF SUB-STANDARD BUSINESS

In determining whether a company should take sub-standard lives or not, the officers have to consider several matters: (a) whether they wish to have a stringent selection with a low mortality; or (b) a liberal selection with a somewhat higher mortality.



As competition is so largely concerned with the question of dividends, the tendency would be towards adopting (a). The agents may be afraid that the adoption of under-average plans would result in many cases being treated as sub-standard which were formerly accepted as standard. It is inevitable that this would be true in a small proportion of the cases. When there is no sub-standard class there is a natural tendency to be lenient with border-line and slightly impaired lives because the company has no alternative but to accept, or decline to issue a policy. Greater justice, however, is done when there is a means of handling these border-line or sub-standard cases according to their merits. While the agents may lose a small percentage of the business by reason of having treated as sub-standard a few types which were formerly accepted as standard, they have, on the other hand, a great advantage from receiving policies on many cases which were formerly declined. If they can place even one-half of the cases issued on under-average plans, the saving in commissions thus effected is very much greater than the loss resulting from placing in the sub-standard class the few border-line or sub-standard cases formerly accepted as standard. Furthermore, the field of operation is greatly enlarged because the agents can canvass actively among border-line or sub-standard risks, whereas they were formerly limited to cases which appeared to be standard and entailed no material hazard from occupation.

#### CONCLUSION

While many companies have the desire to extend the benefits of life insurance to sub-standard risks, and while many of their officers recognize that they are not doing their full duty to the public by refusing to grant policies to sub-standard lives, it is rather a dangerous experiment for new or small companies. Notwithstanding the large amount of data published in recent years, it is necessary to have considerable knowledge, skill and experience to handle sub-standard business successfully. The increasing knowledge with regard to mortality is resulting in greater justice being done to individual lives as the outcome of the ability to differentiate between the various grades, and to grant under-average risk policies which are fair to the applicants and equitable to the company.